

ABSTRACT OF THE DISCLOSURE

NANOEMULSION CONTAINING NONIONIC POLYMERS, AND ITS USES

These objects and others may be accomplished with the present invention, the first
embodiment of which provides an oil-in-water nanoemulsion, which includes:

an oily phase dispersed in an aqueous phase;

(i) at least one amphiphilic lipid selected from the group including nonionic amphiphilic lipids, anionic amphiphilic lipids, and combinations thereof; and

(ii) at least one water-soluble nonionic polymer selected from the group including homopolymers and copolymers of ethylene oxide; polyvinyl alcohols; homopolymers and copolymers of vinylpyrrolidone; homopolymers and copolymers of vinylcaprolactam; homopolymers and copolymers of polyvinyl methyl ether; neutral acrylic homopolymers and copolymers; C₁-C₂ alkyl celluloses and their derivatives; C₁-C₃ alkyl guar; C₁-C₃ hydroxyalkyl guar; and combinations thereof;

wherein a ratio of the weight of the oily phase to the weight of the amphiphilic lipid (i) ranges from 1.2 to 10;

and wherein the oily phase includes oil globules having a number-average size of less than 100 nm. The nanoemulsion obtained is preferably transparent and stable on storage. It may form a composition for topical, preferably cosmetic or dermatological compositions, pharmaceutical compositions and ophthalmological compositions.